L 32418-65 EED-2/EEO-2/EPF(n)-2/EPA(s)-2/EPA(w)-2/EWT(m)/EWT(d)/EWP(b)/EWP(e)
Pt-10/Pu-4/Pab-10 WW

ACCESSION NR: AT5004722 S/2785/63/000/016/0094/0101

66
65
B+1

AUTHOR: Belonogov, A. M.; Sazanov, A. M.; Serdyuk, A. S.; Marchenko, V. P.; Rusakov, A. F.

TITLE: Spectrometer for observation of electron paramagnetic resonance in solids

SOURCE: USSR. Gosudarstvennyy geologicheskiy komitet. Osoboye konstruktorskoye byuro. Geofizicheskoye priborostroyeniye, no. 16, 1963, 94-101

TOPIC TAGS: spectrometer, electron paramagnetic resonance, epr spectrum, automatic frequency control, klystron control

ABSTRACT: A superheterodyne EPR spectrometer is described, intended for the detection and identification of paramagnetic impurities in minerals, and for the determination of the valence and the ground state of the paramagnetic ion, the type of crystal lattice, and many other properties of investigated minerals such as color, conductivity, etc. The spectrometer circuit was initially described by J. M. Hirshon and C. K. Fraenkel (Rev. Sci. Instr. v. 26, 34, 1955) and later modified by Ya. L. Shamfarov (PTE No. 6, 1959). The authors have further improved the circuit by using an automatic frequency control with the frequency modulation

Card 1/3

L 32418-65

ACCESSION NR: AT5004722

of the klystron. A block diagram of the spectrometer is shown in Fig. 1 of the Enclosure. Its operation and the principal circuit elements are briefly described. The average sensitivity of the spectrometer was monitored during the course of the measurements against a standard DPPH sample, and amounted to approximately 5×10^{-9} mole of DPPH. The spectrometer was used to study the EPR of several natural compounds such as spinel, corundum, beryllia, apatite, andradite, and others. The measurements were made at room temperature using an electromagnet with field homogeneity not worse than 10^{-4} G/cm, fed from a current stabilizer with stability 10^{-5}. Some typical EPR spectra and their interpretation are given. Orig. art. has: 5 figures.

ASSOCIATION: None

SUBMITTED: 00 ENCL: 01 SUB CODE: SS, NP

NR REF SOV: 003 OTHER: 002

Card 2/3

L 32418-65

ACCESSION NR: AT5004722

ENCLOSURE: 01

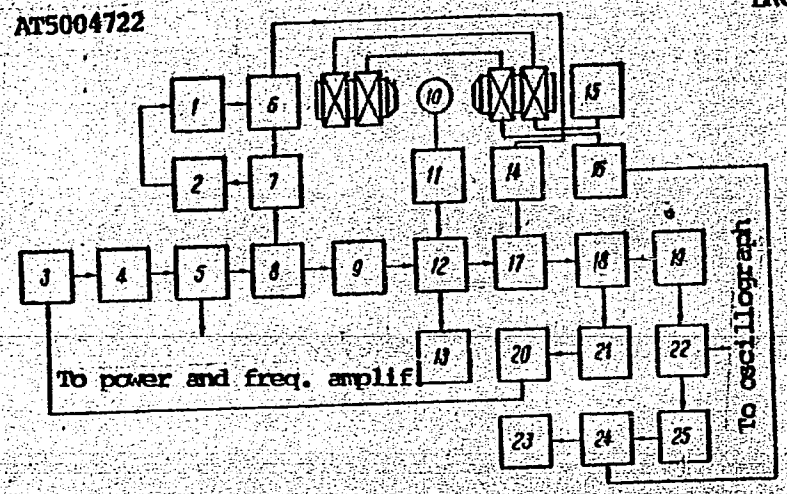


Fig. 1. Block diagram of superheterodyne epr spectrometer

1 - Heterodyne klystron, 2 - klystron frequency control, 3 - signal klystron, 4 - ferrite gate, 5, 8 - directional couplers, 6, 12 — twin-T bridges, 7 - mixer, 9 - calibration attenuator, 10 - resonator, 11 - transformer, 13 - variable load, 14 - attenuator, 15 - power for magnet, 16 - generator and modulator, 17 - balanced mixer, 18 - if preamplifier, 19 - if amplifier, 20 - afc for signal klystron, 21, 22 - detectors, 23 - automatic recorder, 24 - synchronous detector, 25 - low frequency amplifier

Card 3/3

BUZANOV, I.F., akademik, otv.red.; MEL'NIK, M.K., agronom, red.; ORLOV, I.P., agronom, red.; FEDOROV, A.I., doktor sel'skokhoz.nauk, red.; TSYGURA, K.D., agronom, red.; SERDYUK, B.M., red.; MAHOYLO, Z.T., khud.-tekhn.red.

[Production of sugar beet seeds] Semenovodstvo sakharnoi svekly. Kiev, Izd-vo Ukrainskoi akad.sel'khoz.nauk, 1960. 271 p. (MIRA 14:1)

1. Kiyev. Vsesoyuznyy nauchno-issledovatel'skiy institut sakharnoy svekly.

(Sugar beets)

SEMYKIN, K.I., otv. red.; KORCHENYUK, Ya.T., starshiy nauchnyy sotr., red.; GRIGOR'YEV, M.A., kand. sel'khoz. nauk, red.; SUKACHEV, V.P., red.; BOGDANOVICH, M.V., red.; NIKOLAYCHUK, G.M., red.; SERDYUK, B.M., red.; KVITKA, S.P., tekhn. red.

[Scientific works of the Veselyy Podol Agricultural Experiment Station for 1927-1958] Nauchnye trudy Veselopodolianskoi opytno-selektsionnoi stantsii za 1927-1958 gg. Kiev, Izd-vo Ukrainskoi akad. sel'khoz. nauk, 1961. 156 p. (MIRA 15:3)

1. Kiev. Vsesoyuznyy nauchno-issledovatel'skiy institut sakharnoy svekly. 2. Zaveduyushchiy otdelom selektsii sakharnoy svekly Veselopodolyanskoy opytno-selektsionnoy stantsii, Semenovskiy rayon, Poltavskaya oblast' (for Sukachev). 3. Zaveduyushchiy laboratoriyey fitopatologii Veselopodolyanskoy opytno-selektsionnoy stantsii, Semenovskiy rayon, Poltavskaya oblast' (for Bogdanovich). 4. Zaveduyushchiy laboratoriyey agrokhimii Veselopodolyanskoy opytno-selektsionnoy stantsii, Semenovskiy rayon, Poltavskaya oblast' (for Nikolaychuk).
(Poltava Province--Agricultural experiment stations)
(Poltava Province--Sugar beets)

BUZANOV, I.F., red.; VARSHAVSKIY, B.Ya., red.; ORLOVSKIY, N.I., red.; PODTYKAN, Ya.P., red.; SHEVCHENKO, V.N., red.; POZHAR, Z.A., red.; AREF'YEV, T.I., red.; USHAKOV, A.F., red.; MAKSIMOVICH, A.Ye., red.; SIDOROV, A.A., red.; DANIKOVA, M.G., red.; SERDYUK, B.M., red.; LAPCHENKO, K.P., tekhn. red.

[Basic conclusions of research work in 1959-1960]Osnovnye vyvody nauchno-issledovatel'skikh rabot za 1959-1960 gg. Kiev, Izd-vo UASKhN, 1962. 308 p. (MIRA 16:4)

1. Kiev. Vsesoyuznyy nauchno-issledovatel'skiy institut sakharnoy promyshlennosti. 2. Deystvitel'nyy chlen Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im.V.I.Lenina (for Buzanova).

(Sugar beets--Research)

MAKOVETSKIY, P.S. [Makovets'kyi, P.S.]; SERDYUK, D.F. [Serdiuk, D.P.]; Prinimali uchastiye: SUBOTINA, L.I., inzh.; LOGVINA, L.A. [Lohvina, L.A.]; PISHCHAY, I.Ya.

Petroleum of the southwestern zone of the Dnieper-Donets Lowland. Dop. AN URSR no.10:945-950 '61. (MIRA 14:11)

1. Institut geologicheskikh nauk AN USSR. Predstavleno akademikom AN USSR V.G.Bondarchukom [Bondarchuk, V.H.].
(Dnieper-Donets Lowland--Petroleum geology)

MAKOVETSKIY, P.S. [Makovets'kyi, P.S.]; SERDYUK, D.F. [Serdiuk, D.P.]

Petroleums of the Glinsk-Rozbyshevka deposits of the central part of the Dnieper-Donets Depression. Dop. AN URSR no.12:1628-1629 '62. (MIRA 16:2)

1. Institut geologicheskikh nauk AN UkrSSR. Predstavleno akademikom AN UkrSSR V.G. Bondarchukom [Bondarchuk, V.H.].
(Dnieper-Donets Lowland—Petroleum)

MAKOVETSKIY, P.S. [Makovets'kyi, P.S.]; SERDYUK, D.F. [Serdiuk, D.P.]

Petroleum of the Kachanovskoye oil field in the northwestern zone of the stepped faults of the Dnieper-Donets Lowland. Dop. AN URSR no.8:1086-1089 '62. (MIRA 18:2)

1. Institut geologicheskikh nauk AN UkrSSR.

MAKOVETSKIY, P.S. [Makovets'kyi, P.S.]; SERDYUK, D.F.

Lignite is a valuable chemical raw material for the production of montan wax. Khim. prom. [Ukr.] no.3:17-19 Jl-S '64.
(MIRA 17:12)

L 52568-65

ACCESSION NR: AP5009896 UR/0065/65/000/004/0009/0011

AUTHORS: Makovetskiy, P. S.; Smutkina, Z. S.; Serdyuk, D. F. 7 B

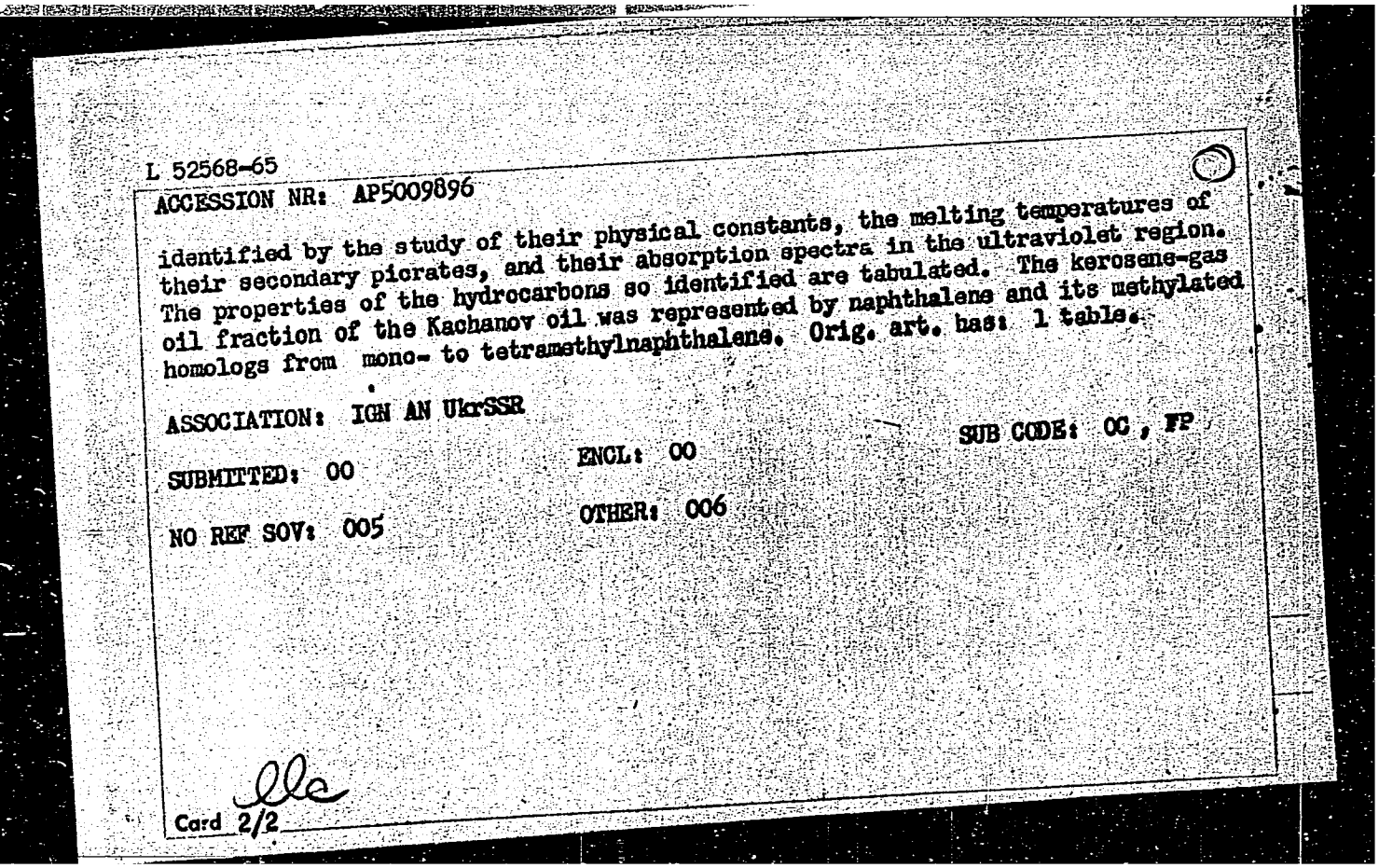
TITLE: Condensed aromatic hydrocarbons of the kerosene-gas oil fraction

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 4, 1965, 9-11

TOPIC TAGS: hydrocarbon, aromatic hydrocarbon, condensation, aromatic compound, aromatic compound spectrum, naphthalene

ABSTRACT: This work is the continuation of an earlier investigation of the Kachanov oils from the Dnepr-Donets basin, and, in particular, of their content of aromatic hydrocarbons of the kerosene-gas oil fraction (200-350C). Condensed hydrocarbons were separated by the chromatographic adsorption on silica gel. After the removal of sulfur compounds by hydrogen peroxide, the aromatics were divided into 3-5 degree fractions. Naphthalenes were separated by the picrate method described by Ye. S. Pokrovskaya (Trudy Instituta nefti AN SSSR, No. 4, 1954, 47) and by S. S. Nametkin, Ye. S. Pokrovskaya, and T. G. Stepantseva (DAN SSSR, No. 67, 1949, 847; DAN SSSR, No. 78, 1950, 715). Crystalline hydrocarbons were purified by repeated recrystallization from ethyl alcohol and liquid isomers were separated from the crystalline ones by freezing. Condensed hydrocarbons were then

Card 1/2



L 52568-65

ACCESSION NR: AP5009896

identified by the study of their physical constants, the melting temperatures of their secondary picrates, and their absorption spectra in the ultraviolet region. The properties of the hydrocarbons so identified are tabulated. The kerosene-gas oil fraction of the Kachanov oil was represented by naphthalene and its methylated homologs from mono- to tetramethylnaphthalene. Orig. art. has: 1 table.

ASSOCIATION: IGN AN UkrSSR

SUBMITTED: 00 ENCL: 00 SUB CODE: OC, FP

NO REF SOV: 005 OTHER: 006

Card 2/2

MAKOVETSKIY, P.S. [Makovets'kyi, P.S.]; Prinimali uchastiye: SERDYUK, D.P.; SUBOTINA, L.I.; LOGVINA, L.A.; [Lohvina, L.A.]; PISHCHAY, I.Ya.

Characteristics of the petroleums of the central part of the Dnieper-Donets Lowland. Dop. AN URSR no.9:1205-1212 '61. (MIRA 14:11)

1. Institut geologicheskikh nauk AN USSR. Predstavleno akademikom AN USSR V.G. Bondarchukom [Bondarchuk, V.H.].
(Dnieper-Donets Lowland--Petroleum)

BARYSHNIKOV, K.I.; BRISKIN, A.I.; VOROTYNTSEV, A.P.; GONCHAROV, P.I.; DRUGOV, Yu.V.; LIPSHITS, L.A.; MOKEYEV, N.I.; NAZAROV, A.V.; PETROV, L.P.; SERDYUK, D.S.; SMETANKIN, K.P.; CHERNYAVSKIY, A.A.; ARTEM'YEV, S.G., red.; ZAKHAROVA, A.I., tekhn.red.

[Sanitary and chemical protection; pathology, clinical aspects, and treatment of poisoning. Manual for students and physicians] Sanitarno-khimicheskaia zashchita; patologiia, klinika i terapiia porazhenii otravliaiushchimi veshchestvami. Rukovodstvo dlia studentov i vrachei. Moskva, Gos.izd-vo med.lit-ry, 1959. 434 p. (MIRA 13:6)

(CHEMICAL WARFARE--SAFETY MEASURES)

SERDYUK, F. A.

SERDYUK, F. A. -- "The Problem of Commutation on Universal Motors." Min Higher Education USSR. Tomsk Order of Labor Red Banner Polytechnic Inst imeni S. M. Kirov. Tomsk, 1955.
(Dissertation for the Degree of Candidate in Technical Science.)

SO: Knizhnaya Letopis', No 9, 1956

SERDYUK, Fedor Aleksandrovich, kand.tekhn.nauk; SKOROSPESHKIN, Aleksey Ivanovich, aspirant

Experimental study of the reaction of commutational and eddy currents in a transverse field amplidyne. Izv. vys. ucheb. zav.; elektromekh. 4 no.3:98-101 '61. (MIRA 14:7)

1. Zaveduyushchiy kafedroy elektrotekhniki Ul'yanovskogo politekhnicheskogo instituta (for Serdyuk). 2. Kafedra elektricheskikh mashin Tomskogo politekhnicheskogo instituta (for Skorospeshkin).
(Rotating amplifiers)

SERDYUK, G., inzh.

Automatic control of temperature in steam-curing chambers. Stroitel' no. 12:23-24 D '60. (MIRA 13:12)
(Autoclaves) (Automatic control)

SERDYUK, G., inzh.

Automation raises quality and makes articles cheaper. Na stroi. Ros. no.1:8-9 Ja '61. (MIRA 14:6)
(Leningrad--Concrete plants) (Atuomatic control)

SERDYUK, G.

Moving toward automated plants. Na stroi. Ros. no.10:26-28 O '61. (MIRA 14:11)

1. Glavnyy inzhener proyekta po avtomatizatsii tresta Leningradostroy.
(Leningrad--Construction industry--Automation)

SERDYUK, G.B.

Carbon welding arc in a transverse magnetic field. Dop. AN URSR no.4:309-310 '54. (MLRA 8:4)

1. Kiivs'kiy politekhnichniy institut. Predstavleno deystvitel'nym chlenom Akademii nauk USSR K.K.Khrenovym.
(Electric welding)

AUTHOR: Serdyuk, G.B. SOV/125-58-11-13/16

TITLE: Problems Relating to the Cause of Gas Flows in the Welding Arc (K voprosu o prichinakh poyavleniya gazovykh potokov v svarochnoy duge)

PERIODICAL: Avtomaticheskaya svarka, 1958, Nr 11, pp 81-84 (USSR)

ABSTRACT: The causes of gas flows in the welding arc, their properties and effect on other processes have not been sufficiently studied. The author discusses the existing theories and suggests his opinion that the principal cause of gas flow formation in the arc is vapor emanation from the electrodes. The high temperatures of the cathode and anode creates proper conditions for flow formation from both these parts, so that two opposite gas flows exist in the arc. The arc shape depends on the interaction of such flows, whereby the determining effect is produced by the flow having the highest rate of gas movement. With the aid of this theory it is possible to explain various phenomena occurring in welding with a carbon arc. The author states that gasodynamic processes in the welding arc are part of a complex of electric, photo, chemical, thermal, microkinetic and other processes. Their importance on such phenomena as the arc pressure on the welding bath,

Card 1/2

Problems Relating to the Cause of Gas Flows in the Welding Arc

the metal passage from the electrode on the work piece, fusing through of the base metal and the arc condition in magnetic blowing has been established. Further investigations are needed. There are 2 photos and 5 Soviet references.

ASSOCIATION: Kiyevskiy politekhnicheskiy institut (Kiyev Polytechnical Institute)

SUBMITTED: June 19, 1958

SERDYUK, G.B.

Calculating the welding arc in a transverse magnetic field. Avtom. svar. 13 no.11:31-38 N '60. (MIRA 13:11)

1. Kiyevskiy ordena Lenina politekhnicheskiy institut.
(Electric arc) (Magnetic fields)

SERDYUK, G.B.

"The welding arc in a magnetic field."

Report submitted to the autumn meeting of the Welding Research Institute, London, England, 29 Oct-2 Nov. 1962

SERDYUK, G.B., kand.tekhn.nauk; CHERNYSH, V.P., inzh.

Kinetics of metal transfer in an argon welding arc. Svar. proizv. no.9:1-3 S '63. (MIRA 16:10)

1. Kiyevskiy politekhnicheskiy institut.

SERDYUK, G.B.; KORNIYENKO, A.N.

The welding arc in an alternating transverse magnetic field.
Avtom. svar. 16 no.10:8-14 O '63. (MIRA 16:12)

1. Kiyevskiy politekhnicheskiy institut.

L 3273-66 EWT(m)/EWP(v)/T/EWP(t)/EWP(k)/EWP(b)/EWA(c) JD/HM/HW

ACC NR: AP5025605 UR/0135/65/000/010/0001/0003
621.791.75.01:538.122

AUTHOR: Serdyuk, G. B. (Candidate of technical sciences)

TITLE: Rotation of the welding arc on concentric electrodes with magnetic control

SOURCE: Svarochnoye proizvodstvo, no. 10, 1965, 1-3

TOPIC TAGS: arc welding, welding electrode, magnetic field, metal tube, plasma flow, cathode polarization

ABSTRACT: Arc welding by means of annular electrodes with magnetic-field control is one of the latest methods of the welding of tubes and tubular frames. When the inner electrode is of a ferromagnetic material, three stages can be observed in the motion of the arc: acceleration, steady-state motion at maximum velocity, and retardation followed by cutoff of the arc or the filling of the arc gap by molten metal due to the change in the magnetic state of the electrode material. A stable rotation of the arc requires that the plasma flux of the arc be chiefly directed from the inner electrode toward the outer, which is reliably assured by using the inner electrode as the cathode and the outer electrode as the anode. An analysis of the kinograms of the initial stages of rotation of the reversed-polarity arc ($I_э$ = 150 a, H_0 = 30 oersted, $v_э$ = 18.5 r.p.m.), taken at the rate of 2,500 frames/second, shows that the ejection of plasma precedes the arc. Arc behavior differs

Card 1/2

L 3273-66

ACC NR: AP5025605

3

depending on the polarity of the concentric electrodes. Thus, if we have $Cu^- - Fe^+$ (negative copper electrode, positive iron electrode), the arc is of direct polarity, whereas for $Fe^- - Cu^+$ the arc is of reversed polarity. Only the reversed-polarity arc is acceptable from the standpoint of the possibility of varying the regime of magnetic control, since then an increase in the arc current expands the overall range of initial values of intensity of the magnetic field H_o. Orig. art. has: 6 figures.

ASSOCIATION: Kiyevskiy politekhnicheskiy institut (Kiev Polytechnic Institute)

44,55

SUBMITTED: 00 ENCL: 00 SUB CODE: IE IE

NO REF SOV: 002 OTHER: 001

Card 2/2

RADOMYSEL'SKIY, I.D.; SERDYUK, G.G.

Equipment of 5 m^3 output per hour for the manufacture of protective atmospheres from ammonia. Porosh. met. 3 no.4: 97-100 Jl-Ag '63. (MIRA 16:10)

1. Institut metallokeramiki i spetsial'nykh splavov AN UkrSSR.
(Gas producers) (Protective atmospheres)

TUZOV, M.S., inzh.; SERDYUK, G.Ya., inzh.

Radio dispatcher systems of Housing Construction cembines.
Biul.tekh.inform.po stroi. 5 no.12:8-10 '59. (MIRA 13:4)
(Radio control) (Precast concrete construction)

SERDYUK, I.V.

Equipment for marking placements of sleeves on pipes. [Suggested by I.V. Serdiuk]. Rats.i izobr.predl.v stroi. no.148:29 '56. (MLRA 10:5)

(Pipelines)

PAVLYUK, S.K.; SERDYUK, I.V.

Preventing cold cracks in chemical apparatus made from VT-1 alloys.
Khim.prom. [Ukr.] no.2:48-50 Ap-Je '65.
(MIRA 18:6)

SOV-127-58-10-5/29

AUTHORS: Serdyuk, K.F. and Snigirev, A. Ye., Mining Engineers

TITLE: Open-pit Mining of the Gubskoye Bauxite Deposit in Water-Logged Rocks (Otkrytaya razrabotka Gubskogo mestorozhdeniya boksitov v obvodnennykh porodakh)

PERIODICAL: Gornyy zhurnal, 1958, Nr 10, pp 19-21 (USSR)

ABSTRACT: The authors describe the method of advanced mine working used in the Gubskoye bauxite deposit, which, due to peculiar geological conditions, was waterlogged. The water-bearing layers were outcropped by a ditch, which was dug out along the deposit to a nearby stream. The water from these layers drained into the stream. This ditch removed enough water so that mining operations could start. About 2/3 of the deposit was extracted without any pumping installation being installed. There is 1 map.

Card 1/2

Gornyy otdel, Tikhvinskogo ginozemnogo zavoda.

SOV-127-58-10-5/29

Open-pit Mining of the Gubskoye Bauxite Deposit in Water-Logged Rocks

ASSOCIATION: Cornyy Otdel Tikhvinskogo glinozemnogo zavoda (The Mining Section of the Tikhvin Aluminum Plant)

1. Mining industry--USSR 2. Bauxite--Production 3. Water --Drainage

Card 2/2

MOKHNACHEV, I.G.; SERDYUK, L.G.; KHUDYAKOVA, R.G.

Method for a rapid determination of carotene in canned foods. Kons. i ov. prom. 16 no.11:38-41 N '61. (MIRA 14:11)

1. Krasnodarskiy nauchno-issledovatel'skiy institut pishchevoy promyshlennosti.

(Carotene)
(Food, Canned--Analysis)

MOKHNACHEV, I. G.; SERDYUK, L. G.

Rapid determining of carotene content by means of the densitometer. Izv. vys. ucheb. zav.; pishch. tekh. no.5:147-150 '62. (MIRA 15:10)

1. Krasnodarskiy nauchno-issledovatel'skiy institut pishchevoy promyshlennosti.

(Food--Analysis) (Carotene)

KOSACHEVA, V.V.; SERDUYK, L.G.

Rapid method of fat extraction in testing canned food for children. Kons. i ov.prom. 17 no.4:29-31 Ap '62. (MIRA 15:3)

1. Krasnodarskiy nauchno-issledovatel'skiy institut pishchevoy promyshlennosti.

(Food, Canned--Testing)

MOKHNACHEV, I.G.; SERDYUK, L.G.; KHUDYAKOVA, R.G.

Determining carotene content of tomato products. Kons.i ov.prom. 17 no.5:42-43 My '62. (MIRA 15:5)

1. Krasnodarskiy nauchno-issledovatel'skiy institut pishchevoy promyshlennosti.

(Tomato products)
(Carotene)

SERDYUK, L.I., inzh.; PEVZNER, A.L., inzh.

Gates made of plastic materials. Trudy Giprovodkhoza no.22: 141-144 '63. (MIRA 17:8)

SERDYUK, L. S.

Serdyuk, L. S. - "The determination of tungsten by the volumetric semi-micro method," Nauch. zapiski (Dnepropetr. gos. un-t), Vol. XXXIII, 1948, p. 185-90, - Bibliog: 19 items

SO: U- 5240, 17, Dec. 53, (Letopis 'Zhurnal 'nykh Statey, No. 25, 1949).

SERDYUK, L. S.

Serdyuk, L. S. - "The theory of the processes of precipitation," Nauch. zapiski (Dnepropetr. gos. un-t), Vol. XXXIII, 1948, p. 191-200, - Bibliog: p. 200

SO: U-5240, 17, Dec. 53, (Letopis 'Zhurnal 'nykh Statey, No. 25, 1949).

SERDYUK, L. S.

Photoelectric determination of nickel in manganese ores by internal electrolysis. L. S. Serdyuk and L. U. Barash. *Nauch. Zapiski Dnepropetrovsk. Gosudarst. Univ.* 43, 99–104(1953); *Referat. Zhur., Khim.* 1954, No. 15042.—The method is based on the sepn. of Ni from Mn by internal electrolysis followed by its colorimetric detn. as I-oxidized Ni dimethylglyoxime in alk. soln. The internal electrolysis is carried out in ammoniacal soln. contg. oxalate which fixes Mn. The set-up for electrolysis is rather simple. With pure salts, the optimum conditions for sepg. Ni from Mn and the fixation of Mn in a complex were worked out and a calibration curve for reading off the Ni content was constructed. The method gives good, reproducible results.

M. Hoseh

SERDYUK, L.S.

137-58-5-11181

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 326 (USSR)

AUTHORS: Serdyuk, L.S., Fedorova, G.N.

TITLE: An Investigation of the Reaction of Magnesium with Aluminone and its Application in Colorimetric Analysis (Issledovaniye reaktsii magniya s alyuminonom i primeneniye yeye v kolorimetricheskom analize)

PERIODICAL: Tr. Nauchno-tekhn. o-va chernoy metallurgii. Ukr. resp. pravl., 1956, Vol 4, pp 154-159

ABSTRACT: Optimal conditions for the formation of Mg complexes with aluminone (I) were studied. It is established that the determination of Mg with I in electrolytic Ni-baths should be conducted at a pH of 11 with a 0.2% aqueous ammonia solution of I. After the separation of Ni, the process of Mg determination requires 20-25 minutes. 10 cc of the electrolyte solution are placed into a 100 -cc flask, where they are diluted to a certain mark. After adding 65 cc of water to 10 cc of the solution, the latter is heated to 80°C; Fe is oxidized with HNO_3, 20 cc of a 1% alcohol solution of dimethyglyoxime are added together with a quantity of NH_4OH sufficient to produce odor. After 30 minutes, the

Card 1/2

137-58-5-11181

An Investigation of the (cont.)

Ni is filtered out, and the solution is heated until all the NH_4OH is removed. After cooling, the solution is placed into a 200-cc flask, from which 5 cc are subsequently withdrawn into a 5 -cc flask; a small amount of an ammonium acetate buffer solution (pH 11) is added to the 50-cc flask together with 5 cc of freshly prepared I. After adding a quantity of buffer sufficient to raise its level to a predetermined mark, the solution is subjected to photometric analysis under a green light filter.

K. K.

1. Magnesium--Chemical reactions 2. Alumin-ne--Applications 3 Colorimetry --Applications

Card 2/2

SERDYUK, L.S.; FEDOROVA, G.P.

Study of the beryllium and aluminum reaction. Ukr. khim. zhur. 24 no.3:384-387 '58. (MIRA 11:9)
(Beryllium) (Aluminum)

SOV/78-4-1-19/48

5(2)

AUTHORS: Serdyuk, L. S., Fedorova, G. P.

TITLE: Investigation of Colored Complexes of Several Rare Earths (Issledovaniye okrashennykh kompleksov nekotorykh redkozemel'nykh elementov)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 1, pp 88-96 (USSR)

ABSTRACT: The reaction of yttrium, lanthanum, and cerium with alizarin S and aluminate was investigated. The influence of pH on the formation of alizarates of yttrium, lanthanum, and cerium was investigated. The absorption spectra of the complexes formed were recorded. The reaction of rare earths to alizarin S with pH higher than 4.6 is more delicate than had been stated in publications. The alizarates of yttrium, lanthanum, and cerium show a ratio of element : alizarin = 1 : 1. The molar absorption coefficients of alizarates were determined. The molar absorption coefficient of lanthanum and cerium is 10,300 and 9,800 respectively, and of yttrium 7,900. The investigation of the influence of several cations on the formation reaction of alizarates of lanthanum and cerium showed that with certain

Card 1/3

Investigation of Colored Complexes of Several Rare Earths

pH values calcium causes an increase of the optical density of alizarate solutions. The effect is used for raising the delicacy of the colorimetric determination of these elements. The effect of calcium on the formation of alizarates can be explained by the formation of double salts of rare earths with calcium and alizarin S. It was found that some masking complex formers, e.g. complexon, fluoric acid, citric acid, pyrophosphoric acid, oxalic acid, etc, suppress alizarate formation. Ascorbic acid and tartaric acid in certain concentration do not influence the optical density of the alizarate solutions of rare earths. Instructions for the colorimetric determination of lanthanum and cerium are given. Even with sulphosalicylic acid not being present, the rare earths form soluble complexes with aluminate if the hydrous solution of the reagent contains a small amount of ammonia. The complex formation of rare earths with aluminate depending on the pH value of the solution was investigated. It was found that on using buffer solutions with pH 6, complexes of rare earths with aluminate in the approximate ratio of 1:1 are formed. This reaction becomes more marked on heating. The determination of the optical density of complex solutions of rare earths with alizarin S and aluminate was carried out with

Investigation of Colored Complexes of Several Rare Earths

the photometer FM, with the filter number 5 (at λ = 533 mμ). There are 12 figures, 1 table, and 14 references, 6 of which are Soviet.

SUBMITTED: October 21, 1957

S/593/60/000/000/002/007
D226/D302

AUTHORS: Serdyuk, L.S., and Fedorova, G.P., Candidates of Chemical Sciences

TITLE: The rare earth metals in metallurgy and methods of their determination

SOURCE: Soveshchaniye po khimicheskomu kontrolyu proizvodstva v metallurgicheskoy i metalloobrabatyvayushchey promyshlennosti. Dnepropetrovsk, 1958. Khimicheskiy kontrol' proizvostva v metallurgicheskoy i metalloobrabatyvayushchey promyshlennosti; [doklady soveschaniya] [Dnepropetrovsk], 1960, 91 - 99

TEXT: An account is first given of the application of the rare earth metals in ferrous and non-ferrous metallurgy, stressing especially the beneficial influence of these elements on the mechanical and chemical properties of the parent alloy, when added in small proportions. Examples of the above are quoted. Some present methods of lanthanon analysis are then briefly described, including: 1) Separation of Ce from the other rare earths by oxidation to Ce^{4+};

Card 1/3

The rare earth metals in ...

2) Determination of total lanthanons in steels by the gravimetric fluoride method and 3) Various colorimetric methods. The latter are thought to be particularly promising. The authors investigated the reactions of La, Ce and Y with aluminon and alizarin S, to develop methods of individual determination of these elements in mixtures. It was found that lakes with aluminon may be used for colorimetry, without sulphosalicylic acid, if the aluminon is used in aqueous, slightly ammoniacal solutions and the reaction is carried out in ammonium acetate buffered solutions at pH 6. Good results (tabulated) were obtained by this method for La, and Ce. Owing to a certain lack of stability of the aluminon reagent, the use of alizarin S, preferably in the presence of boric acid, was found more convenient, over a wide range of pH. Formation of La, Ce and Y alizarinates at various pH is shown graphically. It was found that the individual Ce and La curves differed appreciably from that of Y, but the La and Y were close together when the last 2 elements were mixed. Better Ya-Y separations were obtained replacing the boric acid with ethylene diamine. Under these conditions, sensitivity for Y was higher than for La. Determination of these two elements in stan-

Card 2/3

The rare earth metals in ...

dard mixtures is described in full and the results are tabulated. The agreement is considered satisfactory. There are 2 figures, 2 tables and 58 references: 44 Soviet-bloc and 14 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: M.C. Steele and L.J. England, Analyst, 82, 977, 593 -597, 1957; T.W. Newton and G. Arcand, J.Am.Chem.Soc. 75, no. 10, 2449-2453, 1953; Rao Ramachandra, A. Sitaramachandramurtg and Rao Raghawa, J.Sci.Ind.Res. 14B, no. 4190, 1955; T. Moeller, and M. Tecotzky, J.Am.Chem.Soc., 77, no. 9, 1649, 1955.

ASSOCIATION: Dnepropetrovskiy gosuniversitet (Dnepropetrovsk State University)

Card 3/3

SERDYUK, L.S.; FEDOROVA, G.P.

Photometric determination of yttrium with stilbazo. Zhur. anal.khim. 15 no.3:287-290 My-Je '60. (MIRA 13:7)

1. Dnepropetrovsk. State University.
(Yttrium--Analysis) (Stilbazo)

SERUYUK, L.S.

Study of the reaction between indium and sodium alizarin sulfonate.
Trudy kom. anal. khim. 11:252-260 '60. (MIRA 13:10)

1. Dnepropetrovskiy gosudarstvennyy universitet, Kafedra analiticheskoy khimii.
(Indium) (Alizarinsulfonic acid)

S/075/60/015/003/012/033/XX
B005/B066

AUTHORS: Serdyuk, L. S. and Fedorova, G. P.

TITLE: Photometric Determination of Yttrium With the Stilbazo Reagent

PERIODICAL: Zhurnal analiticheskoy khimii, 1960, Vol. 15, No. 3, pp. 287 - 290

TEXT: The stilbazo reagent was suggested by V. I. Kuznetsov for the photometric determination of aluminum (Ref.1) and is also suited for the determination of tungsten, indium, gallium, and fluorine (Refs.8-10). The authors of the present paper investigated the reaction of yttrium with stilbazo and in addition developed a selective photometric method of determining yttrium. For this study a 10^{-3} M solution of stilbazo and a 10^{-2} M solution of yttrium chloride were used whose titer was determined gravimetrically by means of 8-hydroxy-quinoline. The absorption curves of the pure reagent and of the yttrium complex were taken on a УМ-2 (UM-2) universal monochromator (Fig.1). The absorption maximum of the complex

Card 1/3

Photometric Determination of Yttrium With the Stilbazo Reagent

S/075/60/015/003/012/033/XX
B005/B066

lies at 540 mμ. To measure the optical density of solutions of the complex, a green light filter with a maximum transmission at 540 mμ has to be applied which may be produced from potassium bichromate and copper sulfate solutions. The optimum pH for the reaction of yttrium with stilbazo is pH 7, as lanthanum, a frequent attendant of yttrium, does not react in neutral solution with stilbazo. The reaction of yttrium with the reagent proceeds rapidly; the optical density of the solutions of the complex reaches its constant maximum value already 10 - 15 minutes after combining the reagents. By heating the solution the complex is destroyed. The solutions of the complex obey Beer's law (Fig.4). It was found by the method of the isomolar series (Ref.19) that yttrium reacts with stilbazo in the molar ratio of 1:2. The molar extinction coefficient of the complex was determined by the saturation method (Ref.20); it has a value of ~60000 when using the green filter mentioned above; accordingly, the sensitivity of the reaction is very high. Potassium and sodium ions do not influence the optical density of the solutions, nor do calcium ions in a 50-fold and magnesium ions in 30-fold excess with respect to yttrium. Although lanthanum does not react with stilbazo at pH 7, its presence effects an increase of the optical density of the solution. This

Card 2/3

FEDOROVA, G.P.; SERDYUK, L.S.

Determination of magnesium in soils with aluminum. Izv.vys.ucheb.-zav.;khim.i khim.tekh. 4 no.4:686-687 '61. (MIRA 15:1)

1. Dnepropetrovskiy gosudarstvennyy universitet, kafedra analiticheskoy khimii.
(Magnesium--Analysis) (Aluminum) (Soils--Analysis)

S/073/61/027/002/004/004
B101/B208

AUTHORS: Serdyuk, L. S., Fedorova, G. P.

TITLE: Study of the reaction of rare-earth elements with alizarin S in the presence of ammonia and amines

PERIODICAL: Ukrainskiy khimicheskiy zhurnal, v. 27, no. 2, 1961, 252-256

TEXT: In Ref. 4 (Soveshchaniye po khimicheskomu kontrolyu proizvodstva v metallurgicheskoy i metalloobrabatyvayushchey promyshlennosti (Conference on Chemical Control of Production in the Metallurgical and Metalworking Industries), June 5-10, 1958, Tezisy dokladov, Dnepropetrovsk, 1958, p. 16) the authors found that alizarin S forms colored complexes with yttrium and lanthanum in the presence of ethylene diamine. On the basis of the difference of their absorption maxima, a method could be devised for the separate determination of Y and La. A study has now been made of the reaction of alizarin S with Y, La, and Ce in the presence of other nitrogen-containing substances (ammonia, diethylamine, pyramidon, antipyrine, and pyridine). 10^{-3} M solutions of YCl_3, $LaCl_3$, $CeCl_3$, and alizarin S were used. The red color of alizarin S was removed by adding H_3BO_3. If the amine was added last

Card 1/6

Study of ...

to the solution, maximum optical density was obtained. Fig. 1 shows spectrophotometric curves of Y, La, and Ce complexes with alizarin S in the presence of NH_3 at pH = 9.6-9.8. 25 ml of the solution studied contained 10 ml of 4% H_3BO_3, 3 ml of 10^{-3} M alizarin S, 0.5 mole of 10^{-3} M salt of the rare-earth element (REE), and 1 mole of NH_3. The resultant curves differed only little from the curves obtained in the presence of ethylene diamine. In the presence of diethyl amine, the curves shown in Fig. 3 were obtained at the same pH. The cerium complex was not stable. The curves in Fig. 4 resulted in the absence of amines, but in a solution that had been brought to the same pH by means of alkali. It may be seen from this that only the complexes in the presence of amines and NH_3 can be used for REE determination, owing to their spectral difference. The complexes of Ce and Y in the presence of NH_3 and ethylene diamine are extractable by butanol, isobutanol, and tributyl phosphate, while those of La cannot be extracted by these alcohols. The complexes studied were decomposed by fluorides. The decrease of optical density is highest in the La complex; the Ce complex in the presence of NH_3, and the Y complex in the presence of ethylene diamine are most stable. Spectral absorption curves of the REE complexes in the presence of pyramidon (pH = 7.0), pyridine (pH = 7.5), and antipyrine

Study of ...

(pH = 4.2) were recorded by an ФЭК-М(FEK-M) colorimetric photometer. Fig. 5 shows the result for Y, Fig. 6 for La, and Fig. 7 for Ce. Ammonium acetate was used as buffer solution. Isoamyl alcohol extracts the complex of yttrium alizarinate with pyramidon, but not the pyridine complex. While the alizarinates of La and Ce are hardly extracted by isobutanol, this solvent extracts the complexes of these metals with pyridine and pyramidone. Also the lanthanum complexes with pyridine and pyramidon are better extractable by amyl alcohol than alizarinates in the absence of nitrogen-containing compounds. The La complex with antipyrine is easily extracted by amyl, isoamyl, butyl and isobutyl alcohols. Sodium oxalate destroys the alizarinates of REE and their complexes formed with pyridine and pyramidon. The above-mentioned nitrogen-containing compounds thus form complexes in the reaction of REE with alizarin S, which differ in their spectral properties. There are 7 figures and 8 references: 4 Soviet-bloc and 4 non-Soviet-bloc. The 2 most recent references to English language publications read as follows: A. Y. Ponov, W. W. Wenlaudt, J. Am. Chem. Soc., 77 (4), 857, (1955); T. Moller, Record of Chem. Progress, 14 (2), 69, (1953).

ASSOCIATION: Dnepropetrovskiy gosudarstvennyy universitet (Dnepropetrovsk State University)

SERDYUK, L.S.; SILICH, U.F.

Reaction of lanthanum with alizarin S. Izv.vys.ucheb.zav.; khim.i khim.tekh. 5 no.1:38-42 '62. (MIRA 15:4)

1. Dnepropetrovskiy gosudarstvennyy universitet, kafedra analiticheskoy khimii.
(Lanthanum) (Alizarin)

SERDYUK, L.S.; SILICH, U.F.

Reaction of boric acid with alizarin S. Ukr.khim.zhur. 28 no.2:226-232 '62. (MIRA 15:3)

1. Dnepropetrovskiy gosudarstvennyy universitet.
(Boric acid) (Anthraquinonesulfonic acid)

S/073/62/028/007/002/004
E 075/E136

AUTHOR: Serdyuk, L.S.

TITLE: Determination of the conditional instability constants of yttrium, lanthanum and cerium alizarinates

PERIODICAL: Ukrainskiy khimicheskiy zhurnal, v.28, no.7, 1962, 786-788

TEXT: Since the complexes form colloidal solutions, only conditional instability constants could be determined. To form the complexes alizarin S (1.0×10^{-3} M) was added to 1.0×10^{-3} La, Yt and Ce chlorides. The instability constants

$$K_{in} = \frac{[Me^{3+}]\,[Alis^{-}]}{[Me\ Alis^{2+}]}$$

were determined at pH = 4.7 by using a photometric method. The constants for La, Ce and Yt were 0.9×10^{-5}, 1.0×10^{-5}, and 2.7×10^{-6} respectively. The similarity of the constants makes it difficult to carry out the calorimetric determination of the individual metals. A significant difference between the

Card 1/2

instability constants of the metal-boroalizarin and metal-alizarin S complexes permits to bind the residual alizarin S in the examined solution without disturbing the colorimetric metal-complex. There are 2 tables.

ASSOCIATION: Dnepropetrovskiy gosudarstvennyy universitet (Dnepropetrovsk State University)

SUBMITTED: April 25, 1961

SERDYUK, L.S.; SILICH, U.F.

Formation of a pyrocatechol violet complex with boric acid.
Zhur.anal.khim. 17 no.7:802-808 O '62. (MIRA 15:12)

1. Dnepropetrovsk State University.
(Boric acid) (Pyrocatechol violet)

L 18297-63 EWP(q)/EWT(m)/BDS AFFTC/ASD/ESD-3 RM/JD/JG 61

ACCESSION NR: AP3005001 S/0073/63/029/008/0848/0854

AUTHORS: Serdyuk, L. S.; Silich, U. F.

TITLE: Investigation of the reaction of yttrium with Alizarin S and ammonia

SOURCE: Ukrainskiy khimicheskiy zhurnal, v. 29, no. 8, 1963, 848-854

TOPIC TAGS: Alizarin S, yttrium, ammonia

ABSTRACT: It was established that the reaction of y with Alizarin S and NH_3 forms an addition coordination compound represented as the product of y- and NH_4-Alizarinates. The compound formation is stepwise: y $Aliz_3 \cdot 2NH_4$ Aliz is formed first, then y $Aliz_3 \cdot 5NH_4$ Aliz, upon increasing Alizarin S concentration. The ratio of components in the complex formation was determined by equilibrium displacement, molar ratio and isomolar series (at optimum pH of 9.8) methods. Orig. art. has: 7 figures, 1 table, and 1 equation.

ASSOCIATION: Dnepropetrovskiy gosudarstvenny*y universitet (Dnepropetrovsk state university)

Card 1/2

SERDYUK, L.S.; SILICH, U.F.; SMIRNAYA, V.S.

Extraction-photometric determination of yttrium and lanthanum with alizarin S. Trudy Kom.anal.khim. 14:271-278 '63.
(MIRA 16:11)

SERDYUK, L.S.; LAZORINA, S.M.

Complex formation in the system lanthanum - boroalizarin complex - 8-hydroxyquinoline. Dop. AN URSR no. 12:1621-1624 '64. (MIRA 18:1)

1. Dnepropetrovskiy gosudarstvennyy universitet. Predstavleno akademikom AN UkrSSR A.K.Babko.

SERDYUK, L.S.; SILICH, U.F.

Interaction of yttrium with a boron pyrocatechol violet complex.
Zhur. anal. khim. 18 no.2:166-171 F '63. (MIRA 17:10)

1. Dnepropetrovsk State University.

MIKHAYLOVNINA, A.A. [Mykhailovnina, A.O.]; SERDYUK, L.S.; KHARCHENKO, S.M.

Isolation of ergosterin from the mycelium of Dendrodochium toxicum. Mikrobiol.zhur. 26 no.4:60-62 '64. (MIRA 18:10)

1. Institut mikrobiologii i virusologii AN UkrSSR.

ACCESSION NR: AP4033642 S/0075/64/019/004/0451/0456

AUTHOR: Serdyuk, L. S.; Smirnaya, V. S.

TITLE: Spectrophotometric study of reactions of cesium, lanthanum and yttrium with xylenol orange

SOURCE: Zhurnal analiticheskoy khimii, v. 19, no. 4, 1964, 451-456

TOPIC TAGS: cesium complex, lanthanum complex, yttrium complex, spectrophotometry, chemical analysis, xylenol orange, photometric determination

ABSTRACT: The purpose of this work was to investigate, spectrophotometrically, the reaction of xylenol orange [3,3'-bis-di-(carboxymethyl)-aminomethyl-o-cresol-sulfophthalein] with rare earth elements using cesium, lanthanum and yttrium. It was further planned to develop a method for spectrophotometric determination of these elements. For the study, the complex formation of the optical density of xylenol orange solutions and of its complexes with cesium, lanthanum and yttrium was determined as a function of the pH of the solution. The optical density of the solutions was measured by means of spectrophotometer CF-4 and photocolorimeter FEK-56. The measurements of pH were done on an LP-5 pH meter. It has been shown

Card 1/2

ACCESSION NR: AP4033642

that the optical density of the reagent and complexes display the greatest difference at pH = 6.0, and the complex solutions obey Beer's law quite satisfactorily. The absorption maximum for solutions of these rare earth complexes occurs at 570 millimicrons, while for the reagent itself there are two peaks: at 430 and 580 millimicrons. It was found that the complexes are stable for a certain period of time. Their optical density did not change for 6 days. By isomolar series it was established that these rare earths form 1:1 complexes with xylenol orange. From isomolar series curves it was determined that the instability constants of cesium, lanthanum and yttrium complexes are 4.3×10^{-7}, 4.1×10^{-7} and 3.1×10^{-7} respectively. These complexes can be used for the photometric determination of individual rare earth elements as well as for the determination of the total content of cerium subgroup. Orig. art. has: 7 figures.

ASSOCIATION: Dnepropetrovskiy gosudarstvennyy universitet (Dnepropetrovsk State University)

SUBMITTED: 29May63 ENCL: 00

SUB CODE: IC NO REF SOV: 011 OTHER: 015

Card 2/2

L 31209-65
ACCESSION NR: AP5005840 S/0075/65/020/002/0161/0164

AUTHOR: Serdyuk, L.S.; Smirnaya, V.S.

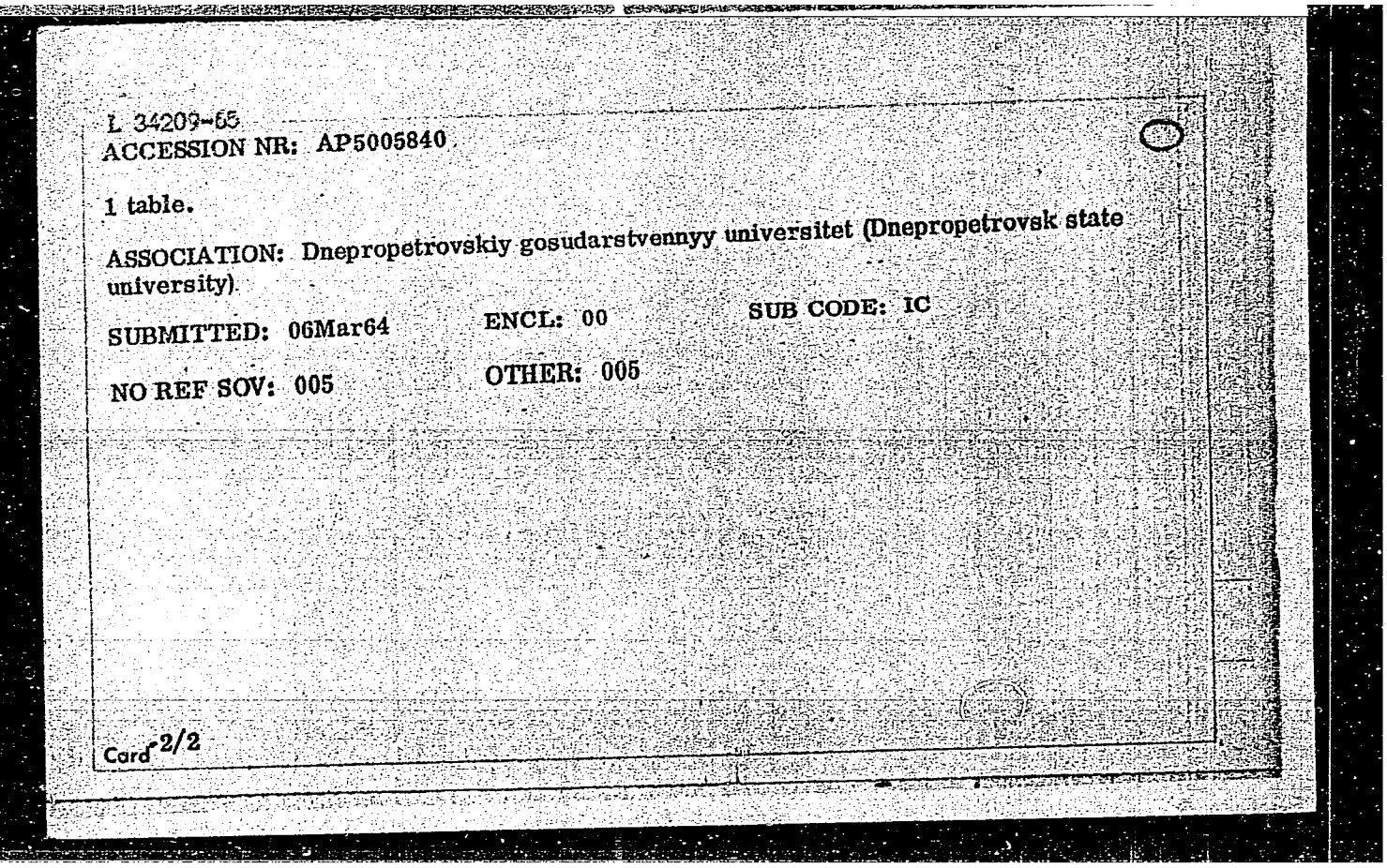
TITLE: Spectrophotometric study of the reactions of yttrium, lanthanum, and cerium with methylthymol blue

SOURCE: Zhurnal analiticheskoy khimii, v. 20, no. 2, 1965, 161-164

TOPIC TAGS: rare earth element, yttrium analysis, lanthanum analysis, cerium analysis, methylthymol blue, colorimetric analysis

ABSTRACT: The study was carried out in order to establish the possibility of determining Y, La, and Ce photometrically with the aid of methylthymol blue. The latter forms complexes with these elements, and the complexes have an absorption peak at 600 mμ. Using curves of isomolar series, the authors determined the composition of these complexes: the molar ratio of metal to dye is 1:1. From these curves, the instability constants of the complexes were calculated. The optical density of the complexes was studied as a function of the concentration of the dye and of the metals under consideration. It was found that Y, La, and Ce can be determined photometrically by means of methylthymmol blue at pH 6.5, this being the value at which the difference between the optical density of the solutions of the reagent and complexes is the greatest. Orig. art. has: 7 figures and

Card 1/2



L 34209-65
ACCESSION NR: AP5005840

1 table.

ASSOCIATION: Dnepropetrovskiy gosudarstvennyy universitet (Dnepropetrovsk state university)

SUBMITTED: 06Mar64 ENCL: 00 SUB CODE: IC

NO REF SOV: 005 OTHER: 005

Card 2/2

SERDYUK, L.I., SIDOR, V.F.

Cause of the "anomalous" coloration of boron complexes with hydroxyl-containing dyes. Ukr. khim. zhur. 31 no.3:302-310 '65. (MIRA 18:4)

1. Dneprop rovskiy gosudarstvenny universitet.

L 3647-66 EWT(m)/EPF(c)/EWP(t)/EWP(b) IJP(c) JD/JW

ACCESSION NR: AP5022387 UR/0170/65/009/003/0332/0336

536.71

21
20
B

AUTHOR: Tabachnikov, A. G.; Serdyuk, L. S.

TITLE: The equation of state of nitric oxide in the temperature interval 190-2000 K at densities of 0-20 kmol/m^3

SOURCE: Inzhenerno-fizicheskiy zhurnal, v. 9, no. 3, 1965, 332-336

TOPIC TAGS: thermodynamic state equation, nitric oxide, nitrogen

ABSTRACT: The article uses existing experimental P, V, T data from the literature to derive an equation of state in the following form:

$$PV = RT + B'\gamma + C'\gamma^2 + D'\gamma^4 + E'\gamma^6. \qquad (2)$$

Experimental data were extended by extrapolation up to a value of gamma (density) equal to 20 kmol/m^3. The parameters of the critical state of nitric oxide were assumed as follows: T_k (critical temperature) equal to 180.15K; P_k (critical

Card 1/2

L 3647-66
ACCESSION NR: AP5022387

pressure) equal to 64.8 x 10^5 newtons/m^2. As a material for comparison the authors selected nitrogen, for which equations of state valid over a wide temperature range are available. The article presents a curve showing the relationship of the densities of nitric oxide and nitrogen at identical reduced temperatures and pressures. By the method of least squares, and using a value of the second virial coefficient calculated on the basis of the most recent values of the parameters of the potential, an equation of state is derived which is valid in the temperature range 190-10,000 K. A check of the validity of the equation obtained, in the pressure range of 0-1000 x 10^5 newtons/m^2 for which experimental data for nitrogen are available, showed that the scatter did not exceed 0.7%. Orig. art. has: 6 formulas and 4 figures

ASSOCIATION: Institut inzhenernov morskogo flota, g. Odessa (Naval Engineering Institute, Odessa)

SUBMITTED: 00 ENCL: 00 SUB CODE: TD, IC
NR REF SOV: 005 OTHER: 005

Card 2/2

L 00800-67 EWT(m)/EWP(t)/ETI IJP(c) JD
ACC NR: AP6026372 SOURCE CODE: UR/0075/66/021/005/0561/0563

32
B

AUTHOR: Serdyuk, L. S.; Lazorina, S. M.

ORG: Dnepropetrovsk State University (Dnepropetrovskiy gosudarstvennyy universitet)

TITLE: Extraction-photometric determination of lanthanum as an alizarinehydroxyquinolinate complex

SOURCE: Zhurnal analiticheskoy khimii, v. 21, no. 5, 1966, 561-563

TOPIC TAGS: lanthanum, cerium, yttrium

ABSTRACT: Lanthanum can be determined by an extraction-photometric method as an alizarinehydroxyquinolinate complex in the presence of cerium oxidized by a hydrogen peroxide or yttrium which is masked by sodium salicylate. N-Butyl alcohol is used as an extractant. The mean deviation of a single determination is not more than ± 3.3%. Orig. art. has: 2 figures and 1 table. [Based on authors' abstract] [NT]

SUB CODE: 07/ SUBM DATE: 29May65/ ORIG REF: 002/

Card 1/1 mjs UDC: 543.70

DZYUBA, I., polkovnik, Geroy Sovetskogo Soyuza, zaslushennyy letchik-ispytatel' SSSR; SERDYUK, M., polkovnik

Outer space is subjugated by the winged. Av. i kosm. 48 no.8:60-63 Ag '65. (MIRA 18:7)

SERDYUK, M.F.

Formation of some *meso*-substituted thiocyanines. I. K. Ushenko and M. F. Serdyuk (State Univ., Kiev). *Ukrain. Khim. Zhur.* 16, No. 4, 446-9(1950).—The reaction of 2-methylbenzothiazole-EtI (I) and $C(OMe)_4$ unexpectedly gave the same thiocarbocyanine (II) that was obtained by treating I with $MeC(OMe)_3$ in pyridine, and therefore was the *meso*-Me substituted deriv. of II (cf. Hamer, *C.A.* 23, 1993). Also the following derivs. of I gave the same derivs. of II by either method (m.p. and $\lambda_{max.}$ in mμ for II given): *5-methoxy-2-methylbenzothiazole-EtBr*, 273°, 557; *2,6-dimethylbenzothiazole-EtI*, 274°, 549; *2-methyl-6-benzoylbenzothiazole-EtI*, 270°, 570; *2-methylbenzothiazole-PhCl*, 205°, 551.

G. Meguerian

KOPANTSEV, M.M.; SERDYUK, M.F.; KALMYKOV, V.Ya.

Reducing the heat consumption in beer distillation. Gidroliz.i lesokhim. prom. 12 no.2:17-18 '59. (MIRA 12:3)

1. Upravleniye tsellyulozno-bumazhnoy promyshlennosti Kaliningradskogo sovnarkhoza (for Kopantsev). 2. Sovetskiy tsellyulozno-bumazhnoy kombinat (for Serdyuk, Kalmykov).
(Distillation)

SERDYUK, M.G.

Application of ion exchange chromatography in the analysis of rhenium, rubidium and cesium salts. Prom.khim.reak. i osobo chist.veshch. no.2: 67-69 '63. (MIRA 17:2)

SERDYUK, M.M. [Serdiuk, M.M.]; KIYKO, D.I. [Kiyko, D.I. [Kyiko, D.I.]

Tractor of 140 horse power. Mekh.sil'. hosp. 9 no.3:28-29 Mr '58. (MIRA 11:4)

1. Pivdenno-Ukrains'ka mashinoviprobuval'na stantsiya.
(Tractors)

SERDYUK, M.M., inzh.

Mounted KNU-1 mole plow. Mekh. sil'. hosp. 9 no.10:17-18 O '58. (MIRA 11:10)

(Drainage) (Agricultural machinery)

SERDYUK, M.M., inzh.

Machine for separating seeds and grinding forage plants. Mekh. sil'. hosp. 11 no.9:30-31 S '60. (MIRA 13:9)

1. Yuzhno-Ukrainskaya machinoispytatel'naya stantsiya.
(Agricultural machinery)

SERDYUK, M.P.

SERDYUK, M.P.

Stenosis of the common bile duct complicated by biliary fistula. Khirurgiia 33 no.11:118 N '57. (MIRA 11:2)

(BILE DUCT, COMMON, stenosis
compl., biliary tract fistula, surg. (Rus))
(BILIARY TRACT, fistula
with common bile duct stenosis, surg. (Rus))

17(10) SOV/177-58-4-12/32

AUTHOR: Serdyuk, M.P., Major of the Medical Corps

TITLE: From the Practice of Treating a Double Open Traumatic Pneumothorax (Iz praktiki lecheniya dvustoronnego otkrytogo travmaticheskogo pnevmotoraksa)

PERIODICAL: Voyenno-meditsinskiy zhurnal, 1958, Nr 4, p 40 (USSR)

ABSTRACT: The author describes a case of double open pneumothorax called forth by cut wounds from the left to the posterior axillary line in the 6th intercostal space and from the right in the 7th intercostal space from the middle axillary line in the direction to the upper angulus scapulae. About 40 minutes after the patient's hospitalization a double torakotomia was performed. During the first 5 days, antibiotics (penicillin and streptomycin) were administered. The patient recovered within 3 weeks and started working after 3 months.

Card 1/1

SERDYUK, M.P.

Injury to the inferior laryngeal nerve in strumectomy. Khirurgiia 36 no. 5:47-49 My '60. (MIRA 14:1)
(LARYNX--INNERVATION) (GOITER)

SERDYUK, N.

Detection of gas leakage by means of radioactive isotopes. Atom. energ. 2 no.4:394 Ap '57. (MLRA 10:6)
(Gas, Natural--Pipelines)
(Radioisotopes--Industrial applications)

SERDYUK, N.D.

USSR/Human and Animal Physiology - The Sensory Organs. V-9

Abs Jour : Ref Zhur - Biol., No 4, 1958, 18656

Author : N.D. Serdyuk
Inst :
Title : The Method of Stimulating the Visual Analysor with a Flashing Light in Certain Illnesses.

Orig Pub : Vrachebn. delo, 1957, No 1, 23-26

Abstract : With 75 patients with retrobulbar neuritis or atrophy of the optic nerve the critical fusion frequency for flicker was less than that of healthy subjects. The author explains this phenomenon by a lessening of the distinguishing capacity of the eye, which begins long before the change in acuity and the reduction in the visual field. Determination of the critical fusion frequency is a sensitive and objective method of examination, which has certain advantages over ordinary perimetry or campimetry.

Card 1/1

Serdyuk M.D.

SERDYUK, M.D.

Results of studying the critical frequency of flicker fusion under physiological conditions [with summary in English]. Fiziol.zhur. [Ukr.] 3 no.6:38-44 D '57. (MIRA 11:2)

1. Kiivs'kiy institut doskonalennya likariv, kafedra pediatrii. i Ukrains'kiy institut okhoroni materinstva i ditinstva, laboratoriya fiziologii.
(VISION)

SERDYUK, N. D.

Cand Med Sci - (diss) "Phenomenon of fusion of flickers in disorders of the optic-nerve apparatus." Kiev, 1961. 16 pp with illustrations; (Kiev Order of Labor Red Banner Medical Inst imeni Academician A. A. Bogomol'ts); 200 copies; price not given; (KL, 5-61 sup, 206)

YUZEFOVA, F. I., prof.; SERDYUK, N. D., ordinator

Hypernephroma of the orbit. Oft. zhur. 17 no.4:231-235 '62.
(MIRA 15:7)

1. Iz glaznogo otdeleniya Kiyevskoy gorodskoy bol'nitsy.

(ORBIT(EYE)--TUMORS)

SERDYUK, N.F.

474 kak my dobilis' uypolneniya plana podnyatiya tselinnykh i zalezhnykh zemel'. [zernosoukhoz im. zhdanova, kazakh. ssr]. m., lzd-vo M-ua soukhozou SSSR, 1954. 8s.s-ill. 20sm. (M-uo soukhozou SSSR. Glau. upr. s.-kh propagandy. Osuoyeniye tselinnykh i zalezhnykh zemel'--Usena/odnoye delo). 15000 ekz. Bespl. -[54.55176] p. 631.61 (584.6)

SO: Knizhnaya Letopis, Vol. 1, 1955

SERDYUK, N.F.

Place traffic safety under public control. Put' i put. khoz. 7 no.5:4-5 '63. (MIRA 16:7)

1. Nachal'nik Sol'vychegodskoy distantsii puti, Severnoy dorogi.
(Railroads—Safety measures)

SERGIYEVSKIY, V.S.; TSOY, L.A.; SERDYUK, N.G.; IVASHKEVICH, F.I.; CHEVAGIN, V.N.

Experimental surgery on the coronary arteries of the heart. Trudy Inst. klin. i eksp. khir. AN Kazakh. SSR 9:72-81 '63. (MIRA 17:12)

SERDYUK, N.G.; SERGIYEVSKIY, V.S.; TSOY, L.A.

Coronary hemodynamics in health. Trudy Inst. klin. i eksp. khir. AN Kazakh. SSR 9:82-86 '63. (MIRA 17:2)

MESHALKIN, Ye.N.; SEMENYENSKIY, V.S.; SERDYUK, N.G.

Experimental data on the study of hemodynamics in disorders of venous coronary circulation. Trudy Inst. klin. i eksp. khir. AN Kazakh. SSR 9:87-95 '63. (MIRA 17:12)

TSOY, L.A.; SERGIYEVSKIY, V.S.; SERDYUK, N.G.; CHEVAGIN, V.N.

Direct vascular anastomoses with the coronary arteries under experimental conditions. Khirurgiia 39 no.11:81-87 N '63. (MIRA 17:11)

1. Iz eksperimental'noy animal'noy laboratorii (zav. - kand. med. nauk V.S. Sergiyevskiy) Instituta eksperimental'noy biologii i meditsiny Sibirskogo otdeleniya AN SSSR.

SERDYUK, N.G.; SERGIYEVSKIY, V.S.; TSOY, L.A.

Hemodynamic changes in the systemic and coronary circulation in acute disorders of the arterial coronary circulation. Pat. fiziol. i eksp. terap. no.2:45-50 '64. (MIRA 17:9)

1. Animal'naya laboratoriya (zav. - kand. med. nauk V.S.Sergiyevskiy) Instituta eksperimental'noy biologii i meditsiny (dir. - prof. Ye. N. Meshalkin) Sibirskogo otdeleniya AN SSSR, Novosibirsk.

[illegible] . . .; [illegible] N.G.; TSOY, L.A.; RYAZANTSEV, D.Ye.

Ventricular fibrillation in experimental disorders of the coronary circulation. Kardiologiia 5 no.1:18-24 Ja-F '65. (MIRA 18:9)

1. Animal'naya laboratoriya (zav.- kand. med. nauk V.S. Sergiyevskiy) Institute eksperimental'noy biologii i meditsiny (direktor - prof. Ye.M. Moshalkin) Sibirskogo otdeleniya AN SSSR, Novosibirsk.